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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 941,697	08/30/2001	Kazuhiko Hosomi	520.40590X00	6210

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ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

HEALY, BRIAN

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,697

Applicant(s)

HOSOMI ET AL.

Examiner

Brian M. Healy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-9 is/are allowed.
- 6) ☒ Claim(s) 1 and 10 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: *Brian Healy*

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DETAILED ACTION

Allowable Subject Matter

1. Claims 5-9 are allowed over the prior art of record.

The prior art does not teach or suggest a dispersion compensator comprising: a light input signal switching means; and a plurality of dispersion compensating waveguides which are placed side by side on the same plane and have different wavelength dispersions and which respectively have coupled microcavities whereby the dispersion waveguides are selected by the switching means to thereby control a value for compensating for each wavelength dispersion in an optical path. In addition, none of the references of record teaches or suggests the drive unit for driving the waveguide array. These features are recited in claims 5-9.

2. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the references of record teaches or suggests a dispersion compensator of claim 1 and also including a periodic structure form coupled microcavities; the length of an occupied waveguide portion (or the lattice constant) of the photonic crystal is changed to thereby compensate for waveguide dispersion, as is recited in claims 2-4.

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Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

4. ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by DiGiovanni et. al., U.S.P. No. 5,802,236.

DiGiovanni et. al., U.S.P. No. 5,802,236 (Figs. 1-6) a dispersion compensator for compensating for a wavelength dispersion of a transmission medium 10 lying in an optically pulsed transmission path 31 comprising: at least one dispersion compensating waveguide formed by a photonic crystal in which non-uniform elements 12, 13, 23 are introduced (See Col. 7, lines 17-68) as voids or other materials such as silica or F-doped silica which can be two or more different medium(s) of different refractive indices whereby a dispersion property of light as it passes

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through the crystal fiber is used to compensate for waveform dispersion, which clearly, fully meets Applicant's claimed invention.

The following references are cited by the examiner as being pertinent prior art: Fajardo et. al., U.S.P. 6,445,862 (Figs. 1-7), Ranka et. al., U.S.P. No. 6,097,870 (Figs. 1-13), West, U.S.P. No. 6,334,017 (Figs. 1-11), Chowdhury et. al., U.S.P. No. 6,433,919 (Figs. 1-8) and Hosomi et. al., U.S.P. No. US 2002/0172456A1 (Figs. 1-18).

Any questions concerning this office action should be directed to:

Brian M. Healy

Primary Examiner

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Phone: (703) 308-2693

A handwritten signature in black ink, appearing to read "Brian M. Healy", is located to the right of the printed contact information.